

Claims

1. A communications system comprising
 - a plurality of common channels (P-CCPCH, CCH) including
 - 5 a primary common control physical channel (P-CCPCH),
 - a plurality of dedicated channels (DCH)
 - a synchronisation channel (SCH),
 - the primary common control physical channel (P-CCPCH) and the synchronisation channel (SCH) being transmitted
 - 10 time multiplexed, and
 - the transmit power of dedicated channels (DCH) being reduced during the transmission of the synchronisation channel (SCH).
- 15 2. The communications system according to claim 1,
 - the common channels and the dedicated channels being transmitted code multiplexed.
3. The communications system according to claim 1 or 2,
 - 20 - the communications system being a Wide-Band-CDMA-System (W-CDMA)
4. The communications system according to claim 1, 2 or 3,
 - the communications system being a Universal Mobile
 - 25 Telecommunications System (UMTS)
5. The communications system according to claim 1, 2, 3 or 4,
 - the reduction of the transmit power of dedicated
 - channels (DCH) being such that the total transmit power
 - 30 of the used channels is substantially constant.
6. The communications system according to any of the preceding claims,

11

the reduction of the transmit power of dedicated channels being such that the total transmit power of the used channels is substantially constant and not above an amplifier power limit.

5

7. The communications system according to any of the preceding claims,

the transmit power of the dedicated channels being reduced during the transmission of the synchronisation channel (SCH) by the difference between the transmit power of the
10 synchronisation channel (SCH) and the transmit power of the primary common control physical channel (P-CCPCH).

8. The communications system according to any of the preceding claims,
15 the transmit power of dedicated channels (DCH) being reduced at the beginning of the synchronisation channel (SCH), and the transmit power of dedicated channels (DCH) being increased at the end of the synchronisation channel (SCH).

20

9. The communications system according to any of the preceding claims,

the transmit power of dedicated channels (DCH) being reduced at the beginning of the synchronisation channel (SCH) by the
25 difference between the transmit power of the synchronisation channel (SCH) and the transmit power of the primary common control physical channel (P-CCPCH), and the transmit power of dedicated channels (DCH) being increased at the end of the synchronisation channel (SCH) by
30 the difference between the transmit power of the synchronisation channel (SCH) and the transmit power of the primary common control physical channel (P-CCPCH).

12

10. The communications system according to any of the preceding claims,

the reduction of the transmit power of dedicated channels (DCH) during the transmission of the synchronisation channel (SCH) being triggered in dependence on information about the synchronisation channel timing.

11. The communications system according to any of the preceding claims,

the reduction of the transmit power of dedicated channels being such that the total transmit power of the used channels is substantially constant and not above an amplifier power limit just before the transmission of the synchronisation channel, just after the transmission of the synchronisation channel and during the transmission of the synchronisation channel.

12. The communications system according to any of the preceding claims,

the sum transmit power of the downlink dedicated channels (DCH) being reduced during the transmission of the synchronisation channel (SCH) in order to keep the total output power at the base station power amplifier below a maximum power limit.

25

13. A method for transmitting data in a communications system,

- the communications system comprising
- a plurality of common channels (P-CCPCH, CCH) including a primary common control physical channel (P-CCPCH),
- a plurality of dedicated channels (DCH), and
- a synchronisation channel (SCH), whereby

30

13

the primary common control physical channel (P-CCPCH) and the
synchronisation channel (SCH) are transmitted time
multiplexed, and

the transmit power of dedicated channels (DCH) is reduced

5 during the transmission of the synchronisation channel (SCH).

14. A base station system for transmitting data in a
communications system,

- the communications system comprising

10 - a plurality of common channels (P-CCPCH, CCH) including a
primary common control physical channel (P-CCPCH),

- a plurality of dedicated channels (DCH), and

- a synchronisation channel (SCH),

- the base station system being arranged such,

15 - that the primary common control physical channel (P-CCPCH)
and the synchronisation channel (SCH) are transmitted time
multiplexed, and

- that the transmit power of dedicated channels (DCH) is
reduced during the transmission of the synchronisation
20 channel (SCH).